

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

I. Interview

Initially, the Applicants would like to that Examiner Heyi for conducting the interview on January 21, 2009. As a result of the interview, independent claim 21 has been amended as discussed during the interview. Applicants would like to point out that the Examiner did agree that the claim amendments are supported by the disclosure of the specification.

II. 35 U.S.C. § 103(a) Rejection

Claims 21 and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hiroaki et al. (JP 2001-229542) and Miyagawa (U.S. 7,142,496). As mentioned above, claim 21 has been amended to clarify features of the claimed invention and to distinguish the claimed invention from the above-mentioned references. Therefore, it is respectfully submitted that the above-mentioned rejection is no longer applicable to independent claim 21 and claim 41 that depends therefrom for the following reasons.

Amended independent claim 21 recites an optical recording medium including a main-information area and a sub-information area. Moreover, claim 21 recites that the optical recording medium includes a row of pits formed on a substrate in the sub-information area, wherein a track pitch of the row of pits is at least 0.24μm wide and at most 0.45μm wide, and wherein the track pitch of the row of pits in the sub-information area is different from a track

pitch of the row of pits in the main information area. Finally, claim 21 recites that the sub-information area is concentrically located closer to a center of the optical recording medium than the main information area. Hiroaki and Miyagawa, or any combination thereof fail to disclose or suggest the above-mentioned distinguishing features as required by claim 21.

Initially, it is noted that Miyagawa teaches that only the main information recording area has a track pitch of 0.32 μm . During the above-mentioned interview the Examiner agreed to this point.

Further, it is noted that Hiroaki teaches that the information recording medium includes a BCE (sub-information) area. During the above-mentioned interview the Examiner did agree to this point as well.

However, although Hiroaki teaches that the recording medium includes a sub-information area, Hiroaki still fails to disclose or suggest the track pitch size of the sub-information area, as recited in claim 21. Additionally, both Miyagawa and Hiroaki fail to disclose or suggest that the track pitch of the row of pits in the sub-information area is different from a track pitch of the row of pits in the main information area, as required by claim 21.

As a result, both Miyagawa and Hiroaki fail to disclose or suggest the above-mentioned distinguishing features of claim 21. Again, claim 21 requires that the track pitch size of the sub-information area is at least 0.24 μm wide and at most 0.45 μm wide and requires that the track pitch of the row of pits in the sub-information area is different from a track pitch of the row of pits in the main information area.

Applicants would like to point out the Examiner's position that, since Hiroaki teaches the use of a sub-information (BCE) area, then the claimed invention would have been obvious to one

of ordinary skill in the art in view of Hiroaki's teaching of the sub-information area and Miyagawa's teaching that the track pitch of the main information recording area is 0.32 μm . The Applicants respectfully traverse the Examiner's position.

Specifically, it would not have been obvious to one of ordinary skill in the art to change the track pitch between the main information area and the sub-information area and further to set the track pitch of the sub-information area to at least 0.24 μm wide and at most 0.45 μm wide, as required by claim 21, because neither Hiroaki nor Miyagawa recognize the specific problems in an optical recording medium which has a plurality of reflection-film removed areas formed by partially removing a metal reflection film.

The present invention was made based on the knowledge of the inventors that the metal reflection film, which is formed on the inclined-surface part 4 in the row of pits, becomes thinner than the film thickness of the metal reflection film which is formed on each of a pit-bottom part 5. Therefore, a quantity of heat which is conducted in the recording medium becomes smaller, and a heat capacity of the metal reflection film necessary for reaching the melting point becomes smaller (see revised version of the specification, from page 24, line 12 to page 26, line 25). Thus, a person of ordinary skill in the art who did not know of this specific problem would not have changed the track pitch of the sub-information area to be different from the track pitch of the main information area, such that the track pitch of the sub-information area is at least 0.24 μm wide and a most 0.45 μm wide, as required by claim 21.

Additionally, the Examiner takes the position that the modification for setting the track pitch of the sub-information recording area to at least 0.24 μm wide and at most 0.45 μm wide would have been obvious because of the benefit of the shortened pitch improves density, as

taught by Miyagawa. However, Miyagawa does not provide such a suggestion. As discussed in the remarks filed on September 11, 2008 with reference to Toshiyuki (JP 2000-011453), the sub-information area, which is located inside the main information area and is used for recording the medium identification information, as recited in claim 21, does not relate to the data capacity of the optical recording medium.

In addition, if Miyagawa were to teach shortening the track pitch in order to improve the recording density, a person of ordinary skill in the art who follows the teaching of Miyagawa would shorten the track pitch of the main-information area as much as possible for the improvement of the recording density so as to make the track pitch of the sub-information area remain consistent with that of the main information area. Accordingly, Miyagawa does not teach that the track pitch of the sub-information area is different from that of the main information area, as required by claim 21.

As mentioned above, the invention of claim 21 would not have been obvious to one of ordinary skill in the art in view of Hiroaki and Miyagawa's teachings, because both Miyagawa and Hiroaki fail to disclose or suggest the above-mentioned distinguishing features, as recited in claim 21. Specifically, claim 21 requires that the track pitch size in the sub-information area is at least 0.24 μm and at most 0.45 μm wide, and requires that the track pitch of the row of pits in the sub-information area is different from a track pitch of the row of pits in the main information area. Additionally, it is noted that in view of the combination of Hiroaki and Miyagawa, a person of ordinary skill in the art would not have recognized the specific problem and the resolution to that problem, as described in the present application and as resolved by the recitations of claim 21.

Furthermore, it is noted that the rejection set forth in the previously mailed Final Office Action was withdrawn because the Remarks filed on September 11, 2008, which insisted that Toshiyuki teaches only that the main information recording area which has a track pitch of 0.32 μm , were found to be persuasive.

Now, it is noted that Miyagawa teaches that only the main information recording area has a track pitch of 0.32 μm , as agreed upon in the interview. Thus, the teaching of Miyagawa is similar to the teaching of Toshiyuki, which admittedly cannot be relied upon for disclosing or suggesting the invention of claim 21. Therefore, for the same reasons described in the Amendment filed on September 11, 2008, it is respectfully submitted that the combination of Hiroaki and Miyagawa also fails to disclose or suggest the invention of claim 21.

Therefore, because of the above-mentioned distinctions it is believed clear that claim 21 and claim 41 that depends therefrom would not have been obvious or result from any combination of Hiroaki and Miyagawa.

Additionally, there is no disclosure or suggestion in Hiroaki and Miyagawa or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Hiroaki and Miyagawa to obtain the invention of independent claim 21. Accordingly, it is respectfully submitted that independent claim 21 and claim 41 that depends therefrom are clearly allowable over the prior art of record.

III. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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